

REMARKS

Claims 1, 2, 4, 5, 7, 8 and 16-18 are rejected under 35 U.S.C. §102(e) as anticipated by the patent to Eberling (US 6,322,159). Claims 1, 6-8, 16-18 have been rejected under Section 103(a) as being unpatentable over the patent to Kramer et al. (US 5,061,015 and hereinafter also referred to as Kramer) in view of the Eberling patent. Claims 2-5, 9, 11, 13-15, 19 and 20 were rejected under Section 103(a) as unpatentable over the Kramer patent, as modified, in view of the patent to Hayden (US 4,095,213). Independent apparatus Claim 1 and method Claim 9 have been amended to have substantially similar scope in connection with distinguishing the prior art references relied upon by the Examiner. These two independent claims emphasize the manual activation feature for overriding the pressure switch subassembly so that the park brake system is released. This feature was previously set out in independent method Claim 11. Because this feature was previously claimed, Applicant submits that no new issue is being raised. And, as the contents of the prior art references relied upon by the Examiner show, this feature constitutes patentable subject matter. Consequently, independent Claims 1 and 11 should be reconsidered. Additionally, Claims 16-20 have been canceled, while only two new Claims 21-22 have been added directed to defining more specific aspects of the invention recited in method Claim 9.

More specifically, the present invention has an electric switch assembly and a pressure switch subassembly. The electric switch assembly includes a push/pull knob. When a pressure less than the threshold pressure is present, the push/pull knob can be manually controlled to override the application of the park brake even when a pressure applied to the park brake is less than the threshold pressure. This inventive feature is not found in any of the prior art of record.

The Eberling patent discloses a vehicle brake system that includes a switch 20 that controls a latching solenoid air valve 22 coupled to a tractor park brake. When the switch 20 is depressed, the valve 22 is opened thereby allowing air to pass to the tractor park brake in order to release it. The vehicle brake system also includes a low-pressure switch 24 that automatically causes the valve 22 to move the exhaust position when the line pressure from the reservoir 12 goes below a predetermined limit. However, there is no structure for releasing the park brake when low pressure is detected.

The Kramer patent describes operations of push buttons 64, 66, together with various valves, whereby tractor and trailer brakes can be applied or released. Furthermore, a pressure sensor 56 measures pressure in a portion of a trailer supply line 20. When low pressure is sensed, this input to the electronic control unit 62 can be used by it to achieve desired control. On the other hand, there is no indication, or any structure, in the Kramer patent related to a switch that is manually controlled to release a park brake when a pressure sensor detects pressure less than a threshold pressure.

This key patentable feature is recited in independent apparatus Claim 1. Referring to the claim language, Claim 1 calls for an electric switch assembly and a pressure switch subassembly. The electric switch assembly includes a push/pull knob. The knob has a first position and a second position. It is in the first position when the pressure switch subassembly detects a pressure less than the threshold pressure. It is in a second position when at least the threshold pressure is detected. Significantly, Claim 1 requires that the push/pull knob be manually controlled from its first position to its second position when less than the threshold pressure is detected. This releases the at least one park brake. In contrast, the switches of the Eberling patent, including the switch 20, cannot control release of the park brakes after low pressure is detected. That is, when low pressure is detected in the pressure line from the reservoir 12, the low-pressure switch 24 causes the air to be exhausted so that the tractor park brake is not released. Once in the non-released state, it cannot be released by the switch 20. The position of the switch 20 cannot override the control applied to the valve 22 by means of the low-pressure switch 24. Likewise, there is no suggestion in the Kramer patent of manually controlling a push/pull knob from one position to another when there is less than a threshold pressure. Indeed, the invention of the Kramer patent relies on an electronic control unit that receives inputs in order to provide automatic controls, including inputs from push buttons, which buttons cannot be used to override a low pressure detection by the pressure sensor 56.

Claim 1 further recites that the push/pull knob is held by an operator in the second position. When the operator discontinues holding it in the second position, the at least one park brake is not released. Such claim language emphasizes the functions and relatedness of the apparatus components that are not found in the prior art of record. The Eberling patent makes no mention of an operator holding a push/pull knob in a second position to release a park brake and the park brake unreleasing when the operator discontinues such holding. Again, the structure of the Eberling

vehicle air brake system does not allow such control since the low-pressure switch 24 controls the valve 22, and such control cannot be changed by movement of the switch 20. The control system of the Kramer patent is no more relevant or material to this patentable difference. There is no suggestion whatsoever in the Kramer patent of an operator controlling the position of push buttons 64, 66, much less any such button being held by an operator in a second position to release the park brake and unreleasing the park brake when the push button is not held in a certain position. Once again, the nature of the automatic control in the Kramer patent does not afford incorporation of this patentable aspect of the present invention.

The Examiner also relies on the Hayden patent. This patent teaches an electric switch assembly that automatically changes between first and second positions. Even if this automatically changing switch of Hayden was somehow incorporated into the Kramer system, the purported, combination system would not meet the terms of Claim 1. There is no suggestion in the Hayden patent of manually controlling a push/pull knob from its first position to its second position. Instead, the electric switch assembly of Hayden relies on automatic control, not manual control. Moreover, no suggestion is found in the Hayden patent of a push/pull knob held by an operator in one position so that a park brake is released and, when the operator discontinues holding the push/pull knob in the second position, the park brake is not released. Rather, the Hayden patent describes an automatically changing electric switch assembly involved with controlling air conditioning.

Based on this patentable aspect, upon reconsideration of Claim 1, it should now be allowed.

Claim 9 is an independent method claim that is substantially similar in scope to Claim 1. Claim 9 requires providing an electric switch assembly and a pressure switch subassembly. The electric switch assembly includes a push/pull knob. Claim 9 recites the step of moving manually the push/pull knob from its first to its second position in order to release the park brake system even when the pressure is less than the threshold pressure. Claim 9 additionally recites the step of holding the push/pull knob in its second position. During the holding, the park brake system is released. When the holding is discontinued, the park brake system is not released. For essentially the same reasoning presented in the discussion of Claim 1, the prior art of record is deficient in teaching or suggesting this patentably distinctive feature. Claim 9 should also be reconsidered and allowed.

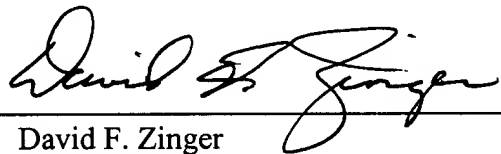
At least for the same reasons, dependent Claims 2-8, 11, 14, and 15, as well as new Claims 21 and 22, should be found patentable over the prior art of record.

A sincere effort has been made to place the application claims in condition for allowance and thereby avoid the necessity of an appeal. Allowance of the pending application claims is solicited.

Respectfully submitted,

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